

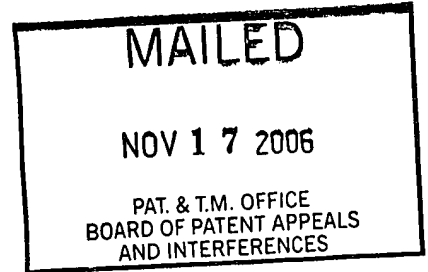
**UNITED STATES PATENT AND TRADEMARK OFFICE**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Ex parte HELEN M. DOHERTY and H. RANDOLPH ROEHL

Appeal No. 2006-3273  
Application No. 09/858,188

ON BRIEF



Before ADAMS, GREEN, and LEOVITZ, Administrative Patent Judges.

ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the  
examiner's final rejection of claims 16-19, which are all the claims pending in the  
application.

Claim 16 is illustrative of the subject matter on appeal and is reproduced  
below:<sup>1</sup>

16. An oxygenated transportation fuel complying with the emissions  
performance requirements of the Clean Air Act Amendments for  
Conventional Gasoline and for Reformulated Gasoline as predicted by  
the EPA Complex Model, said transportation fuel comprising a blend of  
hydrocarbon streams, said blend having the following properties:
  - a) sulfur content of less than about 300ppm,
  - b) an octane rating of from about 87 to about 94,
  - c) a 50% D-86 distillation point of less than about 235°F,

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<sup>1</sup> Claims 17-19 depend from and further limit claim 16.

- d) a 90% D-86 distillation point of less than about 360°F,
  - e) an olefins content of greater than about 15%,
  - f) a Reid Vapor Pressure of less than 7.5; and
- at least one oxygenate.

The examiner relies upon the following prior art:

Townsend et al.

H1305

May 3, 1994

### GROUND OF REJECTION

Claims 16-19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Townsend.

We reverse.

### DISCUSSION

#### Obviousness:

"In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant." In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993), citation omitted. For the following reasons it is our opinion that the examiner failed to meet his burden of establishing a prima facie case of obviousness. If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

According to the examiner (Answer, page 3), Townsend teach a number of reformulated gasoline variations comprising:

- a sulfur content not exceeding 100 parts per million by weight,
- an octane rating of from about 86-94,
- a 50% D-86 distillation point of less than about 180-210°F,
- a 90% D-86 distillation point of about 270-310°F,
- a Reid Vapor Pressure of about 6-8 psia; and
- at least one oxygenate.

Regarding the claimed olefin concentration, the examiner finds (id.),

[i]t is preferred that the concentration of olefinic compounds is reduced in the reformulated gasoline in an amount ranging from about 10 to about 70 percent of the olefins in the unreformulated gasoline, and in another variation, olefinic compounds' concentration is more preferably reduced in the range of about 40 to about 60 percent . . .

Directing attention to column 7, lines 1-26 of Townsend, the examiner finds (Answer, page 5), the reference teaches:

Component concentration ranges for their gasoline as follows:

<u>Component</u>	<u>General Vol. %</u>	<u>Preferred Vol. %</u>
Normal paraffins	about 7 to about 12	about 8.5 to about 9.5
Isoparaffins	about 35 to about 60	about 40 to about 55
Naphthenes	about 6 to about 10	about 6.5 to about 8
Aromatics	less than about 20 (i.e., 0 to less than about 20)	

\*\*\*Oxygenate may be added in an amount to provide the reformulated gasoline with an oxygen concentration in the range of about 1 to about 4 percent by weight oxygen (column 7, lines 41-45).

According to the examiner (Answer, page 6),

[s]ince the sum of normal paraffins, isoparaffins, naphthenes, aromatics, oxygenates and olefins equals 100 volume percent, it is clear that the composition taught by Townsend et al. are not limited to olefin contents of "about 4 to about 10 volume percent" . . .

Clearly Townsend et al. contemplate compositions comprising “an olefins content of greater than about 15 volume percent.”

Based on this evidence the examiner concludes, “the claimed composition would have been obvious to one having ordinary skill in the art.” Id. We disagree.

As appellants point out (Brief, page 5), Townsend “does not teach or suggest an olefin content of greater than about 15 percent” required by appellants’ claimed invention. Instead, as appellants point out (id.), Townsend is primarily directed to reducing the concentrations of olefins. In this regard, we note that Townsend reports the olefin concentration of one industry average (I/A) gasoline to be 9.7 vol. %. Townsend, Table 1. As appellants explain, if one follows the teachings of Townsend (see e.g., column 3, lines 37-41<sup>2</sup>),

with an average olefin concentration of 9.7 percent, a 10 to 70 [%] reduction in the olefin concentration would result in olefin concentrations of 8.7 and 2.8 percent, respectively. These reduced concentrations of olefins are much lower than [sic] the level of “greater than about 15 percent” recited in claim 16. . . .

Brief, page 6.

We recognize the examiner’s arguments on pages 5-6 of the Answer, which rely on column 7, lines 1-26 and 41-45 of Townsend. However, upon close inspection of Townsend, we find that the examiner appears to have misread Townsend’s disclosure. At column 6, lines 43-65, Townsend discloses “another embodiment of . . . [their] invention.” This embodiment is directed to a reformulated gasoline that comprises:

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<sup>2</sup> At column 3, lines 37-41, Townsend teach “[i]t is also preferred that the concentration of olefinic compounds is reduced in the reformulated gasoline in an amount ranging from about 10 to about 70 percent of the olefins in the unreformulated gasoline. . . .”

(a) a concentration of total aromatics in the range of about 10 to about 25 volume percent; (b) a concentration of olefins in the range of about 4 to about 10 volume percent; (c) a concentration of sulfur not exceeding about 100 parts by million by weight; and (d) a concentration of oxygen in the range of about 1 to about 4 weight percent.

Id., emphasis added.

At column 6, lines 66-68, emphasis added, Townsend described “one preferred variation of this embodiment” wherein the “total aromatics of the reformulated gasoline is in the range of about 12 to about 22 volume percent.” Several other variations of the embodiment are set forth in column 7, lines 1-40 of Townsend. While the examiner recognizes the variations at column 7, lines 1-26, the examiner fails to appreciate that these variations are of the embodiment of Townsend’s invention disclosed in column 6, lines 43-53, wherein the olefin concentration is taught to be “in the range of about 4 to about 10 volume percent.” Nowhere in this embodiment or in the disclosed variations of this embodiment does Townsend teach that the olefin concentration can be greater than about 15%. Accordingly, we disagree with the examiner’s assertion that based on Townsend’s disclosure at column 7, lines 1-26 and 41-45, Townsend contemplated “compositions comprising ‘an olefin[ ] content of greater than about 15 volume percent.’”

On reflection, we find that the evidence of record fails to teach a composition comprising an olefin content of greater than about 15 volume percent as is required by appellants' claimed invention. Accordingly, we reverse the rejection of claims 16-19 under 35 U.S.C. § 103 as being unpatentable over Townsend.

REVERSED



Donald E. Adams  
Administrative Patent Judge



Lora M. Green  
Administrative Patent Judge



Richard M. Lebovitz  
Administrative Patent Judge

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